



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,098	02/04/2002	Moran Amidan	U 013862-5	4304
140	7590	03/09/2006	EXAMINER	
LADAS & PARRY 26 WEST 61ST STREET NEW YORK, NY 10023			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,098

Applicant(s)

AMIDAN ET AL

Examiner

Thai D. Hoang

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 02/04/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-11, 14, 22-25, 28-32, 35-38, 41 and 48-51 is/are rejected.
- 7) ☒ Claim(s) 6-7, 12-13, 15-21, 25-26, 33-34, 39-40, 42-47, 52-53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HANH NGUYEN
PRIMARY EXAMINER

HNguyen

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/10/04&08/22/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 23, 28-29 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The word "alternation" recited in claims 1-2, 23, 28-29 and 49 are not clear. It is confusing what is meant by "alternation".

Claims 10 and 37, the statement "changing the partitioning among the subchannels while transmitting the words of the data, responsive to a change in one or more of the subchannels" is confusing. It is not clear what is meant by "changing the partitioning among the subchannels while transmitting the words of the data, responsive to a change in one or more of the subchannels"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8-11, 22-25, 28-32, 35-38, 48-51 are rejected under 35 U.S.C. 102(b) as being unpatentable by May et al., US Patent No. 5,835,536, hereafter referred to as May.

Regarding claims 1-2, 11, 23, 28-29, 38 and 49, as best understood, May discloses a method and apparatus for reducing peak-to-average requirements in multi-tone communication circuits. May teaches that the apparatus comprise the steps of (see fig. 10, col. 1, lines 38-39 and 50-51, col. 8, lines 14-21):

receiving framed data 802,

the framed data is encoded and mapped with bandwidth of subchannels; and
transmitting encoded data to a receiving terminal.

Regarding claims 3 and 30, as best understood, May discloses the apparatus maps data bit encoded by symbol generator to the subchannels by comparing. It indicates each data bit block has a block size.

Regarding claims 4, 24, 31 and 50, as best understood, May teaches that the apparatus encodes data from data frames.

Regarding claims 5, 25, 32 and 51, as best understood, May discloses the data symbols are generated prior to compare with the bandwidth subchannels; see fig. 10.

Regarding claims 8 and 35, as best understood, May teaches the apparatus operates in a plurality of frequency bands; col.1, lines 50-51, col. 3, lines 41-50

Regarding claims 9 and 36, as best understood, each subchannel in the apparatus disclosed by May inherently comprises at least wire to transmit and receive data symbols.

Regarding claims 22 and 48, May discloses the apparatus adapts with DSL; col. 1, lines 22, 30-31, 42.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 14, 37 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over May as shown above in view of Gross et al, US Patent No. 6,266,348, hereafter referred to as May and Gross respectively.

Regarding claims 10 and 37, as best understood, May discloses that the framed data is encoded while transmitting data symbols to a receiver. May does not teach the step of changing encoded data frame in responsive to a change in one or more channel. However, Gross discloses a modem responds to a condition in the system to change a set of parameters of the modem. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Gross' method into the apparatus disclosed by May in order to optimize the bandwidth of the system because the status of the system is always updated.

Regarding claims 14 and 41, May does not disclose a table for mapping data symbols. However, Gross teaches this feature, col. 7, line 11- -col. 8, line 14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Gross' method into the apparatus disclosed by May in order to optimize the bandwidth of the system.

Allowable Subject Matter

Claims 6-7, 12-13, 15-21, 26-27, 33-34, 39-47 and 52-53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,128,348 A, Kao et al., "Method for configuring data and energy parameters in a multi-channel communications system."

US Patent No. 6,266,395 B1, Liu et al., "Single-ended subscriber loop qualification for xDSL service."

US Patent No. 6,445,773 B1, Liang et al., "DMT test method for determining ADSL capability of cables."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Chieh can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2668

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thai Hoang



HANH NGUYEN
PRIMARY EXAMINER